

List of Claims:

Claims 1-27 (cancelled)

Claim 28 (new): A method of encoding a speech signal, said method comprising:
processing said speech signal to generate a plurality of frames, wherein each of said plurality frames includes a plurality of subframes;
coding a previous subframe of said plurality of subframes using Code-Excited Linear Prediction to generate a previous excitation signal; and
applying short term enhancement using said previous excitation signal to enhance a current excitation signal for a current subframe.

Claim 29 (new): The method of claim 28, wherein said short term enhancement is achieved by using a main pulse from said previous subframe to generate one or more short term enhancement pulses based on short term correlation between said previous subframe and said current subframe.

Claim 30 (new): The method of claim 28, wherein said main pulse is generated by said coding said previous subframe.

Claim 31 (new): The method of claim 28, wherein said short term enhancement is achieved by weighting said previous excitation signal by a current weighting filter to estimate correlation peaks at a distance within said current subframe.

Claim 32 (new): The method of claim 31, wherein said short term enhancement determines around five peaks and gains per each sub-frame from said previous excitation signal.

Claim 33 (new): The method of claim 31, wherein said current excitation signal is constructed using $P(n) = C \sum_i G_i \cdot \delta(n - T_i) + \delta(n)$, where G_i is a gain, T_i is a distance for an i th peak, and C is a coefficient.

Claim 34 (new): The method of claim 33, wherein gains and distances are calculated by maximizing correlations of previous excitation signals in a weighted speech domain.

Claim 35 (new): The method of claim 33, wherein short term enhancement pulses are generated by performing a convolution operation of $P(n)$ with said previous excitation signal.

Claim 36 (new): The method of claim 28, wherein said short term enhancement utilizes pitch lag information.

Claim 37 (new): The method of claim 36, wherein said pitch lag and gain from said previous subframe are scaled and added to said current subframe to enhance an amount of data used to describe said current excitation signal.

Claim 38 (new): An encoder for encoding a speech signal, said encoder comprising:
a speech processing circuitry configured to process said speech signal to generate a plurality of frames, wherein each of said plurality frames includes a plurality of subframes;
a coding circuitry configured to code a previous subframe of said plurality of subframes using Code-Excited Linear Prediction to generate a previous excitation signal; and
a short term enhancement circuitry configured to apply short term enhancement using said previous excitation signal to enhance a current excitation signal for a current subframe.

Claim 39 (new): The encoder of claim 38, wherein said short term enhancement is achieved by using a main pulse from said previous subframe to generate one or more short term enhancement pulses based on short term correlation between said previous subframe and said current subframe.

Claim 40 (new): The encoder of claim 38, wherein said main pulse is generated by said coding said previous subframe.

Claim 41 (new): The encoder of claim 38, wherein said short term enhancement is achieved by weighting said previous excitation signal by a current weighting filter to estimate correlation peaks at a distance within said current subframe.

Claim 42 (new): The encoder of claim 41, wherein said short term enhancement determines around five peaks and gains per each sub-frame from said previous excitation signal.

Claim 43 (new): The encoder of claim 41, wherein said current excitation signal is constructed using $P(n) = C \sum_i G_i \cdot \delta(n - T_i) + \delta(n)$, where G_i is a gain, T_i is a distance for an i th peak, and C is a coefficient.

Claim 44 (new): The encoder of claim 43, wherein gains and distances are calculated by maximizing correlations of previous excitation signals in a weighted speech domain.

Claim 45 (new): The encoder of claim 43, wherein short term enhancement pulses are generated by performing a convolution operation of $P(n)$ with said previous excitation signal.

Claim 46 (new): The encoder of claim 38, wherein said short term enhancement utilizes pitch lag information.

Claim 47 (new): The encoder of claim 46, wherein said pitch lag and gain from said previous subframe are scaled and added to said current subframe to enhance an amount of data used to describe said current excitation signal.